



MINING AND SUSTAINABLE REGIONAL DEVELOPMENT

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Contrasting images of mining driven development in northernmost Sweden

- **On one hand there is a richness of raw materials and advanced know-how related to exploration, exploitation and refinement**
- **On the other hand there are several mining potentials in remote, weak and vulnerable local environments in terms of social, cultural and economic life as well as ecosystems**



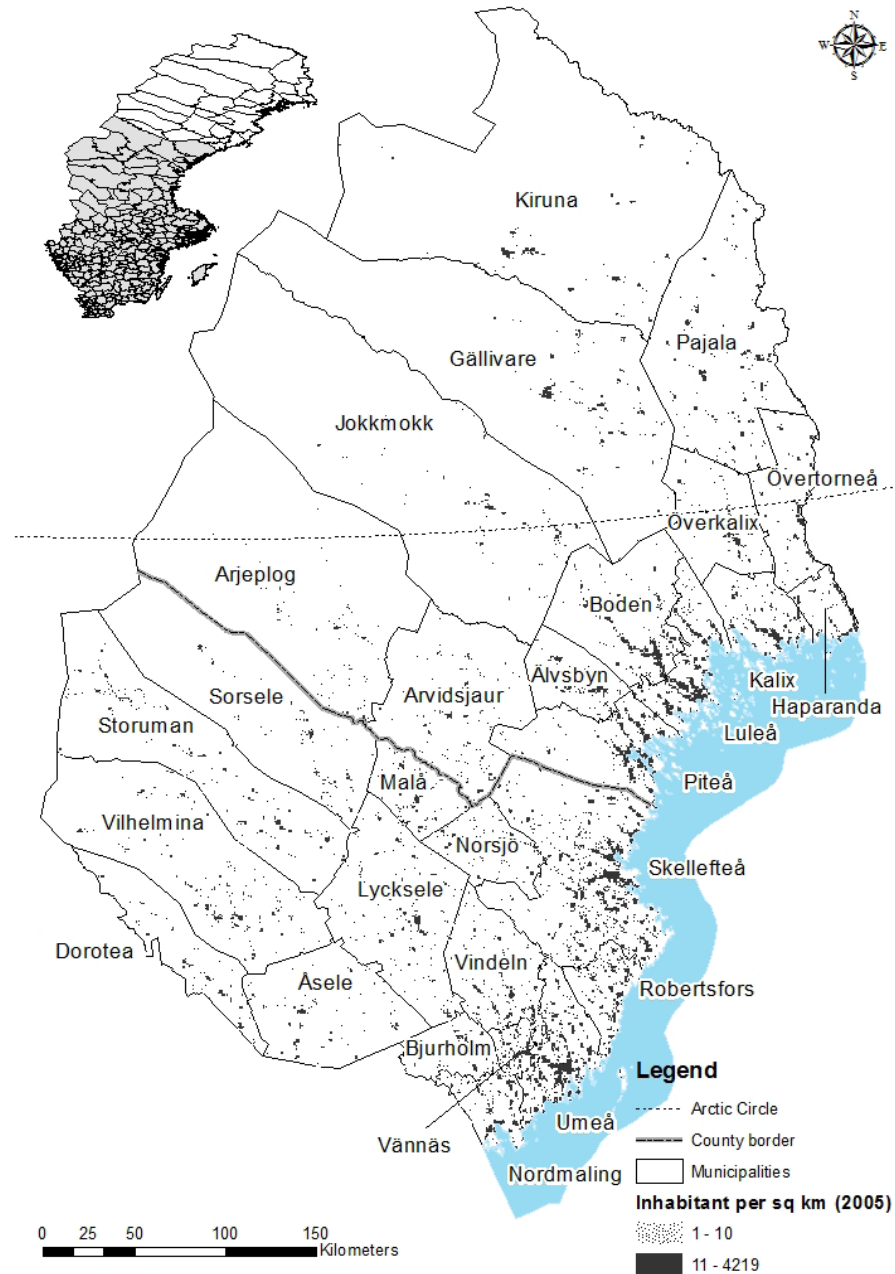
Strengths in the counties of Norrbotten and Västerbotten

- **Raw material potentials of significant importance in a European perspective**
- **Strong long term tradition of mining and mining related industry with the mining companies LKAB and Boliden as the main drivers.**
- **A broad range of companies with advanced knowledge and experience related to mining – equipment, methods for processing, analyses and estimations, etc. Some of these have a world leading position.**
- **R&D capacity: Luleå Technological University with several research centres within mining, metals and mineral collaborating with mining companies and related industries. Umeå university plays a complementary role with stress on environmental issues, land use issues, socio-economic impact analyses and health conditions in mines.**



HOWEVER – Most existing and potential mines are located in declining or stagnating sparsely populated municipalities with an aging population, which means many challenges to handle for achieving sustainable local socio-economic impacts.

Some challenges are general, others location-specific.





A revised pattern of mining companies under way

- **In addition to the traditional main operators LKAB and Boliden a number of both domestic and foreign mining companies have during the recent decade shown interest to explore options and start up mining**
- **These, often rather small, companies, and sometimes also with a weak financial capacity, show interest in mining potentials in other parts of the region, which means extremely challenging opportunities for municipalities with no established experience of mining industry**
- **There exist examples of suggested new mines creating several hundred direct jobs in municipalities with less than 7000 inhabitants, which means a significant growth opportunity**



Local socio-economic impacts of mining are dependent on:

- **World market prices on metals and minerals – level and stability**
- **Accessibility to land and ways of handling land use conflicts, especially vulnerable reindeer herding practised by the Sami**
- **Environmental threats and strategies to handle them**
- **Concentration and size of potential assets for mining, and time perspective for exploitation**
- **Needs for investments in mining infrastructure**
- **Volumes of production and character of labour demand**
- **Needs for transport infrastructure – existing or quite new**
- **Accessibility to relevant work force and sub-suppliers in the municipality – degree of fly in–fly out pattern**
- **The total local labour market structure and possibilities for accompanying partner to find a job**
- **Capacity of welfare services and on the housing market**



Major indirect local impact potentials related to the size of the mine and the number of employed

- **Investments in transport infrastructure, housing and other built environment**
- **Transports**
- **Public services**
- **Commercial services**



Minimize “fly in-fly out” and take care of opportunities for population growth

- **That calls for a dialogue between the mining company and the municipality on measures attracting and facilitating immigration of workers with relevant competences and their families, including awareness of the need for active efforts to recruit women**
- **Municipal risk taking and recruitment strategies to provide growth of welfare capacity – especially within health care, schools, leisure activities for children and women, public communications and housing alternatives**
- **Also calls for an active municipal role to foster development of complementary industry, diversifying the local labour market**
- **Sometimes collaboration across municipal borders in these efforts is of critical importance**



The mining municipalities need powerful long term reliable back up capacity

- **In order to strengthen local social and economic development based on mining is also needed initiatives and measures on the other administrative levels and by a variety of actors**



A further great challenge for achieving long term local sustainability based on mining

- **To foster development of innovative and competitive companies in a global market perspective**
- **The local mine as a demanding customer and test site for equipment and services**
- **As mentioned the north of Sweden already hosts several good examples of successfully achieved global competitiveness among mining related companies**
- **Additional mining companies and mines strengthen options for continuation of a variety of such development paths based on both collaboration and rivalry in the regional setting**



Thank you!